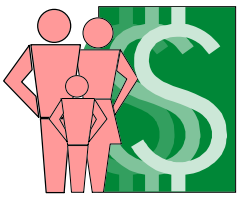
WHY SCHOOL-TO-CAREERS?



WHY SCHOOL-TO-CAREERS?

The Changing Scene of the American Workforce and Educational System

Numerous reports over the past decade have quickly pointed out the shortcomings of our educational system and existing workforce development strategies, but only minor changes have been made to address these complex problems. Each report has detailed the multiplying concerns about the readiness of American youth to enter into productive roles in our country's changing workplace and economy. What has brought about the need for educational reform efforts, such as School-to-Work? Over the past 10-15 years, dramatic changes in the U.S. and world economies have focused public attention on the importance of assisting American youth in making the transition from school to work, particularly those who do not attend four-year colleges. Several factors have contributed to our current situation. Policymakers, and society in general, have failed to improve an educational system in which academic and occupational learning were separated, suggesting that the application and uses for occupational and academic learning were different. For many students, it seems that society's definition of success is the attainment of a baccalaureate degree. Consequently, students must choose between a college prep track, a general education track or a vocational track. The jobs of today and well into the future will, however, require all employees to possess high levels of technical and academic skills.

Educational entities, business/industry/labor, and communities have engaged in limited collaboration concerning the maintenance and development of new educational programs. Clearly, the inevitable outcome for every student, regardless of educational attainment, will be entrance into the world of work. A comprehensive educational system must be developed that will reflect this philosophy.

In recent years, significant changes in the technologies have occurred, and they will ultimately require graduating students to possess a completely different set of academic and occupational competencies and skills than in the past. In past decades, many students found the traditional career path consisted of a predictable formula. Hard work and perseverance led to a wealth of job opportunities, and advancement often followed quickly, as the new employee honed a particular skill. A hard-working high school graduate often earned his or her way into a management position simply by exhibiting responsibity, dependability, and loyalty to the business. Many in today's workforce can testify to this progression, and these virtues should not be taken lightly—indeed, they still comprise the backbone of what employers look for when hiring new employees. The past decade has brought significant changes as the playing field began to change, by tilting dramatically in favor of the new generation of "the technologically literate." Today's frontline workers must possess not only highly technical skills but also a complimentary set of academic skills allowing them the flexibility to adapt to today's workforce, and that of the future. Our educational philosophy must consist of a mission to prepare all students for work and/or further learning and productive employment. We must recognize, now more than ever, that we are a work-oriented society, and our educational system must reflect that reality.

Clearly, a mismatch has developed between available job opportunities and the educational requirements necessary to secure them. Reports from the Bureau of Labor Statistics indicate that more than 65 percent of the jobs available over the next 10-15 years will require more than a high school diploma but less than a four-year college degree. Approximately 20 percent of future jobs will require professional degrees (Bachelor's degree or higher) with unskilled labor representing only 15 percent of the future workforce (See Chart 1). This mismatch is most dramatically apparent when we compare the future skill requirements of the workforce and the educational tendencies of American youth in secondary schools.

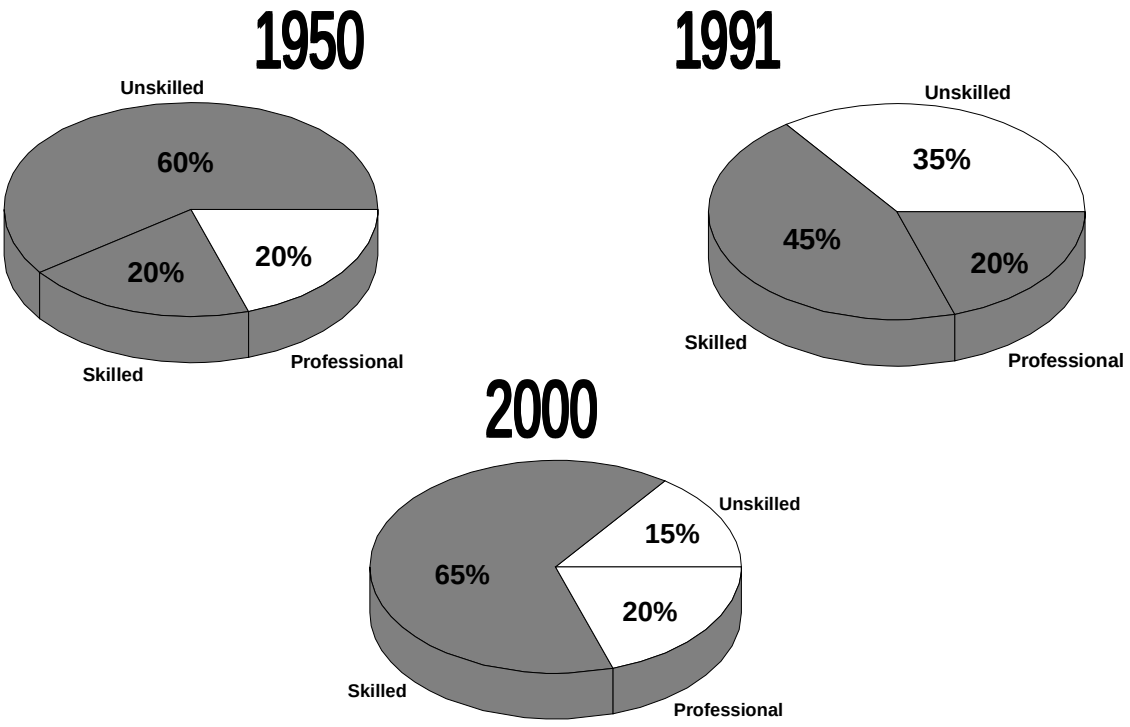
TENDENCIES OF SECONDARY STUDENTS

Studies indicate that nearly 75 percent of the students at the secondary level are preparing for a four-year education. The other 25 percent are either in a vocational or a general education curriculum (See Chart 2). Based on future projections of workforce needs, this trend inevitably will lead to a disproportionate number of employees prepared for jobs that do not exist because of over-preparation in certain fields.

The basic philosophy of the School-to-Work Opportunities Act is to assist students in appropriate preparation for future jobs by providing them with timely and accurate career information and an opportunity to attain high levels of academic and technical skills. Furthermore, the School-to-Work Opportunities Act seeks to develop a system in which students may sequentially navigate the various education and training programs to reach their occupational goal. When fully implemented, a School-to-Careers system will provide secondary students the opportunity to attain a high school diploma or an alternative diploma or certificate, to make the transition to postsecondary education; to continue developing high levels of

JOB SKILL LEVEL CHANGES 1950—2000

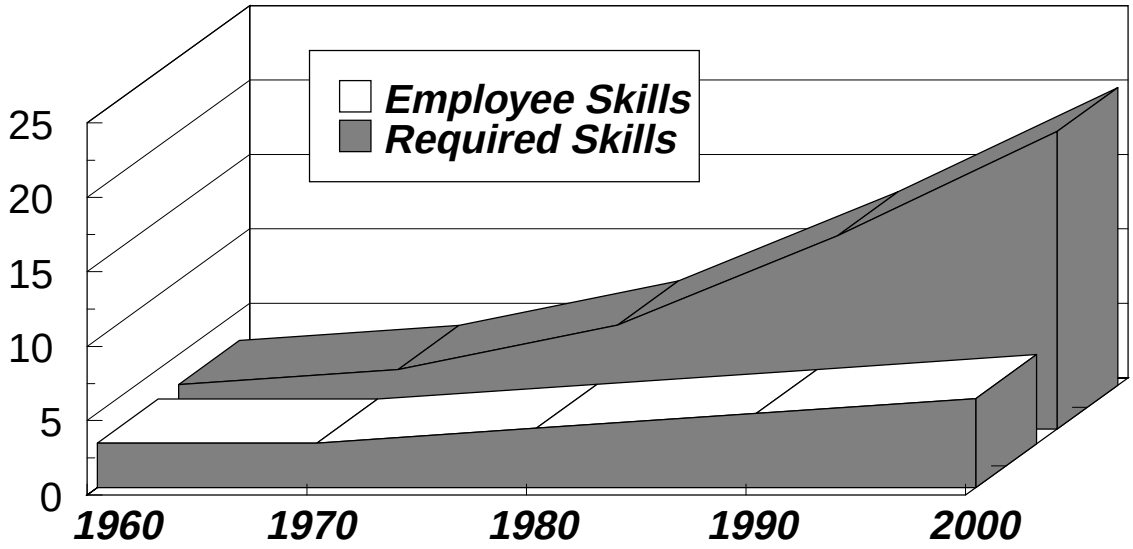
Source: U.S. Bureau of Labor Statistics



academic and technical skills; or to enter the world of work, with options for further education if desired. The idea is to provide students with a greater number of educational and career options. In many instances, students who prepare for a four-year college degree have difficulty finding employment if they do not complete all four years of their college education. Conversely, students who currently train in our traditional vocational system find few opportunities to further their education because of the lack of acceptance of their academic and technical education credentials. Our goal must, therefore, be to develop an educational system that is sequential in nature, instead of one that asks some students to make a huge jump from secondary school to the four-year college level. Students who do not complete this degree risk not attaining appropriate job skills. At the same time, other students are excluded from further education because of the lack of acceptance of their academic and technical education credentials. We can overcome this gap in our educational system by developing collaborative partnerships between all educational levels to initiate a seamless system for providing optimum opportunities for all students.

TRAINING GAP

Chart 2



POSTSECONDARY PLANS

Across the nation, upon high school graduation, only about 50 percent of secondary students actually make formal plans to attend a four-year institution. Twenty-five percent enter technical training while the remaining students enter the world of work with only the skills attained at the secondary level.

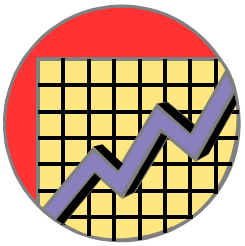
POSTSECONDARY DEGREE COMPLETION

National studies that track students' progression through the education system indicate that, even after six years, only about 25 percent of the students who originally intended to receive a four-year education actually complete a program and receive a baccalaureate degree. Approximately 25 percent earn an associate degree and the remainder are lost either through the attrition between high school graduation and completion of a four-year degree or because they enter the world of work directly out of high school (See Chart 3). It is unclear exactly where the students lost in this attrition go, whether to the community colleges or into the world of work, but one thing is very clear: few of the jobs these students will apply for will require one, two or even three years of a baccalaureate degree. Unfortunately, even though these students have some postsecondary education, part of a four-year degree does not get them far. In most cases, they ultimately enter the workforce with the credentials of a high school graduate.

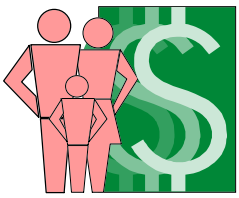
AMERICAN EDUCATIONAL DEMOGRAPHICS

Chart 3

Workforce Needs by Year 2000	Professional	Technical		Unskilled
Post Secondary Degree Completion	Bachelors Degree	Associates Degree	?	Unskilled
Post Secondary Plans	4-Year Degree		Technical Training	None
High School	College Prep			Voc. Ed. Gen. Ed.



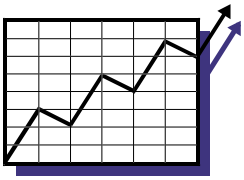
Furthermore, a report issued in 1993 by the American Association of Community Colleges indicates that, in this nation's 1,200 community colleges, just over 22 percent of their total enrollments are students who already have attained a four-year college degree. We believe that developers of future educational systems should take note that all jobs will require high levels of academic and vocational-technical skills in the near future. The development of educational systems should focus on providing students with options at all levels of education and in occupations—indeed, the very philosophy behind the School-to-Work Opportunities Act.



NEEDS OF THE WORKFORCE BY THE YEAR 2000 AND BEYOND

We can only speculate on the requirements the workforce of the future will need, but indicators currently show that the demand for professional workers will remain constant, as they will make up less than 25 percent of the future workforce. The most significant job opportunities will come in technical areas. Experts now predict that as much as 75 percent of the workforce will be comprised of highly-skilled, technically-oriented workers. Unskilled workers will be able to fill

fewer than 15 percent of the jobs beyond the year 2000 (See Chart 2). Given this data, we must act now to develop a preventive solution to this mismatch between education and job opportunities or face the dilemma, in six to ten years, of devising a curative solution for our workforce problems.



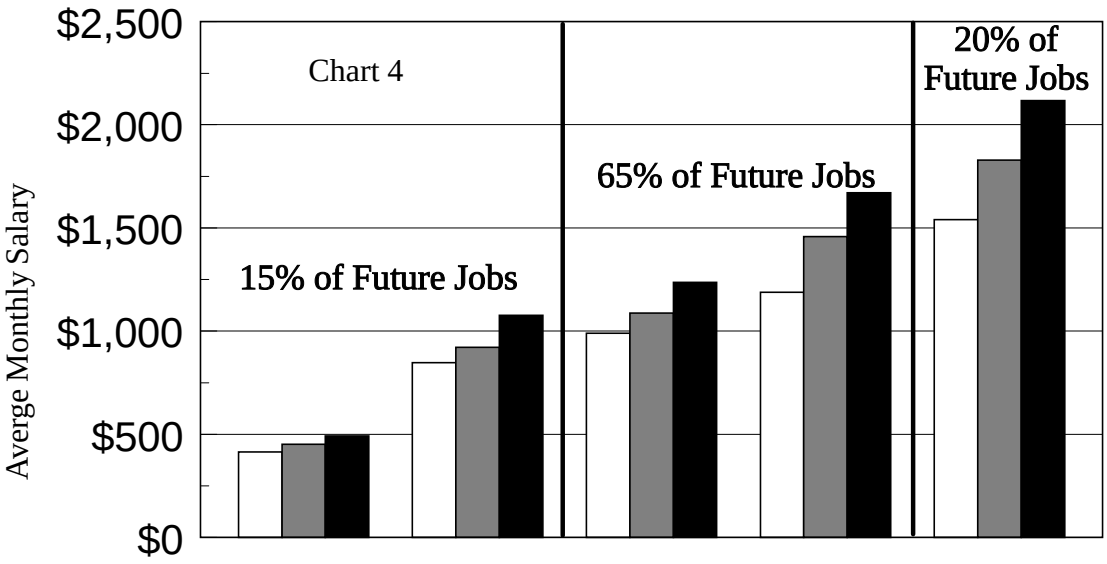
If we, as an educated society, believe that all students have the capacity to learn and to become productive citizens, we must realize the School-to-Careers system can contribute significantly to this goal. For years, our educational system has ignored the many forms of intelligence and learning styles that exist among students. The development of tech prep programs over the past five to seven years has made the public aware of other forms of intelligence and diverse learning styles. The School-to-Careers initiative builds upon this foundation and further encourages the development of innovative educational programs that take into account students' various learning styles. Evidence of this effort is embodied most clearly through the School-to-Work Opportunities Act's work-site based learning component. This component recognizes that not all students will learn efficiently within the confines of a strictly educational setting.

More and more, educational leaders are beginning to see the importance of exposing students to a wide variety of occupations at very early ages. For many students, the inability to focus or to make decisions about career opportunities stems from a lack of information. If students are not aware of all available options, how can they make informed career decisions? The intent is not to track students into future occupations but, instead, to provide them with enormous amounts of broad-based career exploratory information. For some students, an occupational or career focus may give them an incentive to come to school each day. These students need to see the connection between what they are learning and how it will affect them later in life. For them to fully understand this connection and to make informed career decisions, career exploration and career awareness must become integrated throughout all aspects of curricula at the secondary level. Each instructor must play a vital role in not only the student's academic or technical instruction, but also in his or her career counseling.

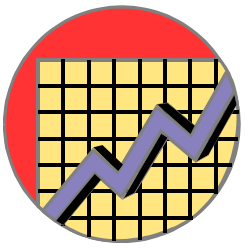
A comprehensive School-to-Careers system can begin to address issues such as jobs and job opportunities and educational attainment, opportunities for increased career awareness and career exploration, and learning styles. For example, if we simply say that we will teach higher levels of math, science, and communications skills, without considering the methodology in which we will deliver this instruction, then we risk the failure of large numbers of students. Clearly, a vast number of students in this country's educational system are not connecting with the curriculum. They are not considered dropouts because they come to school every day and sit in their seats for each of the six to eight 53-minute periods typically required. Instead, they represent a group of students who have disengaged from traditional instruction, not because they lack intelligence, but because they are applied and contextual learners receiving instruction in a theoretical and abstract learning environment. These students often become "invisible dropouts" who exhibit low achievement levels and discipline problems. For any educational initiative to succeed with these students, it must recognize that alternative methods of instruction

AVERAGE WAGE BY EDUCATIONAL LEVEL

Source: U.S. Bureau of Labor Statistics



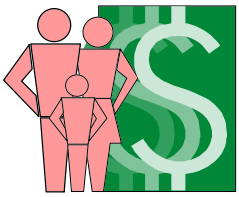
	Non-HS Diploma	HS Diploma	Voc. Certificate	Associates Degree	Bachelor's Degree
1984 □	$415	$848	$990	$1,188	$1,540
1987 ▒	$452	$921	$1,088	$1,458	$1,829
1990 ■	$492	$1,077	$1,237	$1,670	$2,117



are capable of giving students the same rigorous competencies in math, science, and communications as traditional programs.

SUMMARY

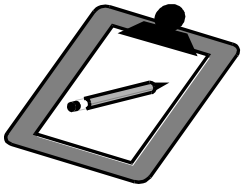
The School-to-Careers initiative seeks to develop a comprehensive system that provides students with greater options for both the short- and long-term (See Chart 4). As we have demonstrated, many students in our current educational system prepare for an educational level they will never attain. A more sensible approach would be to build a seamless educational system that affords students as many options as possible, and accommodates students who may work, dropout, or stopout as they progress through the sequential steps. Chart 4 demonstrates the rationale for preparing students in this manner. Students who prepare for a four-year degree often complete only one, two or three years of that degree program and then enter the workforce with just a high school diploma. A more logical sequence for many of these students would be to graduate from high school and transition into a postsecondary program before making the decision to go on to a four-year institution. This concept is significant because, in



1990, a student with an associate degree earned $593 a month more, on the average, than a student with a high school diploma. A number of four-year institutions are beginning to recognize the articulation of technical degrees. As this practice becomes more widespread, it will pave the way for the creation of 4+2+2 programs. This structure provides students with the option of stopping out at any time and picking up the program later. Some collaborative programs around the country have formed partnerships between high schools and community colleges, and they allow students to graduate from the secondary level with both a high school diploma and a one-year certificate in one of various career clusters.

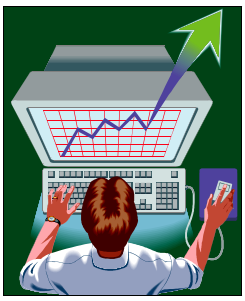
The School-to-Work Opportunities Act's individual components are not necessarily new discoveries in the development of an educational system. They have resulted from the evolving workforce and educational environments over the past 50 years. The philosophy underlying the School-to-Work Opportunities Act seeks to develop a system or process based on the following premises:

- Adequately addressing the educational requirements for our current and future workforce will require collaborative partnerships between education, business, labor, and communities.
- Every employment opportunity requires the use of head and hand skills which should be developed through integrated academic and technical curricula.
- We can educate and employ our youth simultaneously by forming collaborative partnerships between all levels of education and employment entities.
- Education and employment are closely connected and should be treated as such, regardless of the occupational outcome or required education.
- Constant advances in technology will require students and workers to develop and possess high levels of both academic and technical competence.
- Students and workers will change occupations throughout life, and they should be provided with basic foundation skills and competencies needed to adapt to future workplace requirements or to further educational opportunities.
- Students at all levels need guidance in determining future employment opportunities through the development of comprehensive career education programs involving business, industry, parents, teachers, counselors, administrators and communities.
- Rigorous alternative educational opportunities can be provided through collaborative partnerships, for students outside the walls of educational institutions.
- Students will attain advanced levels of education and employment through articulation and skill certificates and through close integration with work-based learning opportunities.



The School-to-Work Opportunities Act's underlying vision is that our current educational system will serve as a point of departure for alternative approaches to achieving educational excellence. Vocational education and its subcomponents will play a vital role in this educational restructuring effort. Our current educational system has, in many ways, lived beyond the environment for which it was created. To create a climate of change within our educational

system, we must develop a reconfigured view of the currently accepted boundaries of education and refuse to let them define programs for the future. Educational restructuring must focus upon building on past successes, while re-engineering the unproductive components. The ultimate goal is to develop a flexible system oriented toward an ever-changing environment while remembering that no initiative is a permanent solution.



SCHOOL-TO-CAREERS: EDUCATIONAL RESTRUCTURING

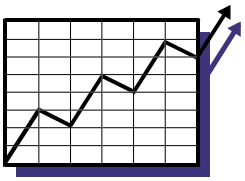
The School-to-Careers initiative seeks to develop a comprehensive system that provides students with more short- and long-term options. As discussed, many students in our current system prepare for an education level that they will never attain. A more sensible approach is to build a seamless education system that offers as many options as possible, taking into account that students may work, dropout or "stopout" as they progress through a series of educational steps.

One important fact that has become clear is that students must start in the elementary grades with career awareness activities, progress into career exploration in the middle grades and early high school, and, finally, move toward career preparation during the later high school years.

Schools across the country have conducted many of the activities outlined on the chart for many years. In fact, the School-to-Work Opportunities Act's individual components are not necessarily new discoveries, but they are the result of 50 years of change in the workforce and our country's education environment.

The School-to-Work Opportunities Act's objective is to develop a new system, more relevant to our changing times, based on the following elements:

- Collaborative Partnerships—Education, business, labor, and communities must collaborate to adequately address the education requirements needed by the members of our current and future workforce.
- Integrated Curriculum—Every employment opportunity requires the use of head and hand skills, acquired through integrated academic and technical curricula.
- Technological Advances—Continuing advances in technology will require students and workers to develop and maintain high academic and technical competence levels.
- Adaptable Workers—Students and workers will change occupations throughout life and need basic foundation skills and competencies to adapt to changing workplace requirements and to further educational opportunities.
- Comprehensive Career Guidance—Comprehensive career education programs, involving business, industry, parents, teachers, counselors, administrators and community organizations, will help students explore career opportunities and make informed choices.
- Work-Based Learning—Through collaborative partnerships between schools



and employers, students can gain practical experience outside the walls of educational institutions.

- Step-by-Step Approach—Students must be able to attain advanced levels of education and employment in steps, with skill certificates closely integrated with work-based learning opportunities.

Passage of the School-to-Work Opportunities Act confirms that it will no longer be "business as usual" in education. In fact, it signals an educational revolution and schools will need to respond by considering radically new ways for students to achieve educational excellence.

Our national goal should be to develop a flexible system that responds to a constantly changing environment in which no initiative or solution can be considered permanent. Our current education system must serve as a point of departure as we consider alternative approaches to achieving educational excellence.

Vocational-technical education will play a vital role in this restructuring effort, but academic and vocational educators, employers, and state and local governments musts work together to reconfigure the educational system. To create a climate of change within our educational system, these partners must look beyond their current roles in education, break down the walls that have existed, and develop a new vision for the future. This educational partnership must build upon the successful aspects of current programs while designing new programs and strategies to fix existing problems. Those who succeed in the future will be those most willing to envision new directions and to accept change as a permanent part of the educational process.